SYSTEM AND METHOD FOR IMPLEMENTING A CONSOLIDATED APPLICATION PROCESS

FIELD OF INVENTION

The present invention relates generally to a method that allows customers of a networked service provider to apply for a variety of networked services on one dynamically assembled consolidated application and enables them to receive real time decisioning on their application status for many products.

BACKGROUND OF THE INVENTION

A networked service provider may want to provide its customers with access to a plurality of services, each services having its own, unique application process.

For example, an Internet banking site may wish to provide their customers with a full range of banking services, *e.g.*, opening and maintaining a checking account, applying for a credit card or loan, paying bills, or accessing brokerage or financial planning services. Using the current state of the art, before a customer can utilize these services, the customer must complete a separate application process for each product. Therefore, the customer may be required to complete several applications, often entering the same information, *e.g.*, name, address, telephone and social security number, on multiple applications. This is a significant drawback to the customer. This is also a significant drawback to the Internet banking host because customer dissatisfaction may result in lost accounts. Furthermore, when a customer of a networked service provider completes a service application, application processing may

require a significant amount of time. This delay in the application process is a significant drawback.

SUMMARY OF THE INVENTION

An object of the present invention is to overcome this and other drawbacks in the existing systems and methods.

Another object of the invention is to provide customers of a networked service the ability to apply for a variety of services on one consolidated application.

Another object of the invention is to enable customers to receive real time decisioning on the status of their applications.

These and other objects of the invention are accomplished according to various embodiments of the invention. The present invention provides a consolidated application system that comprises a dynamic application module. Users choose one or more services provided through a networked service provider. Then, the dynamic application module presents the customer with a consolidated application, which is partially completed with information that is known about the customer. After the customer completes the blank portions of the application, the dynamic application module sends the application to another server for real-time processing.

In one embodiment, the present invention may comprise a method of enabling customers of an Internet banking service provider to complete applications for particular banking services, where the applications are pre-filled with customers' personal information. Internet banking customers, for example, may utilize a browser system to connect to a host

server providing a range of Internet banking services. If the customer wishes to utilize one of the particular services, he or she may select that service. These services may include on-line bill paying, instant credit card applications, loan applications, or checking account services. The customers may have to apply for the selected service(s) by completing an application.

After selecting desired banking services and products, a dynamic application module of the host Internet bank, determines the services for which the customer is applying. The dynamic application module then creates an application page for the customer to complete over the network. The application page contains fields for the customer to provide the information required to apply for each required service. This dynamically created application page allows the customer to apply for many services and products through an easily completed and efficient applications process. The dynamic application eliminates duplicate requests for identical information from the customer that is required when the customer completes individual static applications for each product or service.

To further expedite and simplify the application process, the dynamic application module is able to determine whether the customer is logged in as a customer of the host Internet bank. If the customer is logged in, the dynamic application module may contact an e-profile database to retrieve the customer's previously provided personal information. This information may include the customer's name, address, and telephone number. The dynamic application module then fills the particular application with the personal information and then presents the customer with the partially completed application for completion. If the customer is not logged into the host Internet banking site, he or she is presented with a blank

application for completion.

After the customer completes the application for the banking service and verifies that the information provided on the application is correct, the application is sent for further processing to approve or decline the application. The customer then receives the status of his or her application.

In the above manner, this application process provides Internet users a method to efficiently apply for products or services and obtain an immediate decision.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 depicts a schematic diagram of a system according to an embodiment of the invention.

Figures 2A and 2B depict a flow diagram illustrating a method according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

For purposes of illustration, a system and method according to an embodiment of the present invention are described below. That system is described as being part of an Internet system that enables customers of an Internet banking service provider to complete applications for particular banking services, where the applications are pre-filled with customers' personal information. The invention is described in terms of an Internet based bank providing a multitude of financial services, some of which are provided by remote providers. However, this embodiment is exemplary only. The invention also finds

application in other scenarios requiring customers of a host service provider to complete an application in order to utilize services provided. It should be appreciated that the present invention could be implemented through a variety of networked environments, such as the telephone network, a satellite connection network, or any other system that provides information to a user in a network fashion.

For purposes of clarity and simplicity, the invention is described in terms of the existing Internet. The skilled artisan will recognize that the invention could be implemented in variations thereto, such as the so-called Internet Protocol Next Generation (IPng) or any other variations of networked packet-switch technology.

An embodiment of a system for implementing the method disclosed below is depicted in Figure 1. It should be understood that other embodiments for carrying out the present invention may be provided. In the exemplary embodiment of Figure 1, a plurality of customers access the dynamic application system through user processors 20 connected using network 10 to a host service provider 30. In the preferred embodiment, the customers connect to an Internet banking service site at host service provider 30. Also in the preferred embodiment network 10 comprises the Internet, although the network may also comprise a cable network, a LAN, a WAN, an intranet, the Supernet, or any other network that allows transmission of data. The user processors 20 are local computers including Internet browser modules.

The host service provider 30 is a server on which resides the software interface to the Internet bank. The host service provider comprises a plurality of modules that function to perform the functions described above in addition to other functions including those set forth

below. Although separate modules are described for performing these functions, it should be noted and understood that additional modules may also be provided and that modules may be combined.

According to the preferred embodiment of the invention, host service provider 30 includes a universal session manager 32, a dynamic application module 34, an e-profile database 36, and an application processing database 38.

The dynamic application module 34 is a software package that provides customer applications to the bank's products and services. The dynamic application module 34 interacts with the universal session manager 32. The universal session manager is a program to manage customer data and security while interacting with the host service provider 30. When an existing customer is logged in to the universal session manager, previously provided stored information regarding the customer is made accessible. The dynamic application module 34 interacts with the universal session manager 32 to gain access to this information that may be used during the application process to automatically fill certain application fields. The dynamic application module 34 retrieves this information from the e-profile database 36. The e-profile database 36 is a database that contains information regarding existing customers. The application processing database 38 is a database that stores information regarding an applicant's application process. Such information may include the length of the application process, whether the application was ultimately submitted and the ultimate decision on the application. The dynamic application module 36 interacts with the application processing database by providing data regarding the application process.

Approval of the application is accomplished through an decision module 40. Decision module 40 is a processor dedicated to receiving an applicant's data and determining whether the applicant meets the requirements for receiving credit. Decision module 40 may reside outside the host service provider 30 and may receive applicant data from multiple sources. The dynamic application module 34 provides applicant data to the decision module 40 and also receives the results of application determination from decision module 40. The dynamic application module 34 is constructed to receive application data from a customer's user processor 20 through network 10 and to format this data for transmission to decision module 40.

The preferred embodiment of the method of dynamically creating an application page and receiving an application from a customer is described below. Referring now to Figures 2A and 2B, the preferred method executed by the system shown in Figure 1 is depicted. In step 50, a customer is prompted to apply for products or services offered by the provider. The prompt may be included in a web page provided by the host service provider 30 at the request of the customer. The prompt may also take the form of an advertisement or other link to the Internet bank site. In step 100, the customer of an internet bank selects one or more internet banking products and services. The host service provider 30 may comprise a server system connected over the World Wide Web or Interent 10 to provide web-pages upon request from one or more users utilizing a web browser on user processor 20. Accordingly, step 100 may comprise a customer connected to a web site of an Internet banking service provider and utilizing the browser on user processor 20 to select a service provided through that web site. This selection may occur through a page or pages provided

by the bank that allows the customer to select multiple products from an extensive list of available products. The term products is used herein to refer to products and services. In this Internet bank example, the products include credit cards accounts, checking accounts (and overdraft protection), loans, investment accounts, certificates of deposit, etc. The selection may also occur though an advertisement or other presentation that provides a link to the dynamic application module 34. In the later case, the customer may not have the opportunity to chose from among all the products and services supported by the dynamic application module 34. The dynamic application module receives the customer selections from each of the various customer entry points and processes each request according the products and services selected by the customer.

In step 150, the dynamic application module receives the customer selection. In the preferred embodiment, the customer selection is received in the form of a uniform resource locator (URL) that is directed to the dynamic application module 34 and includes parameters that indicate which services or products the customers desires to apply for. The dynamic application module 34 parses the received URL to identify the products and services selected by the customer.

In step 200, the dynamic application module determines the categories of information required to apply for the services and products identified in the receiving step 150. Each product and service supported by the dynamic application system is associated with the categories of information required to apply for the product or service. For example, the customer may desire to apply for both a checking account and a credit card. After identifying that the customer has selected a checking account and a credit card in step 150,

the dynamic application module determines the categories of information required to apply for both a checking account and a credit card. This may include, for example, information generic to all applications such as name, address, employer, income, housing, etc. Other categories may include information specific for application for the checking account or the credit card account. For example, application for the checking account may include information regarding whether overdraft protection is desired. Application for the credit card may include information regarding whether the customer wishes to transfer balances from other credit cards. Other categories of information may apply to multiple but not all services or products. For example, application for both the checking account and the credit account may include information regarding whether the customer desires a second user to have access to the accounts. This information may not be required if the customer is applying to purchase a certificate of deposit. Thus in the current example where the customer has selected to apply for both a checking account and a credit card account, the dynamic application module would determine that a general information category, a second authorized user category, a overdraft category, and a balance transfer category of information is required.

In step 250, an application page is assembled that requests the information for each of the categories determined to be required in step 200. Each category of information has a corresponding associated HTML document. The document for each category includes objects permitting the customer to enter the required information. These objects may include text fields, buttons, image fields, checkboxes, radio buttons, list/menus, etc. The dynamic application module 34 dynamically assembles the HTML documents associated

with each required category of information into an application page. The application page thus includes all the objects required to gather all the information to apply for each product or service selected by the customer. However, no information is requested multiple times from the customer regardless of the number of services or products selected.

In step 300, the dynamic application module interacts with the universal session manager 32 to determine if the customer is logged in as an existing customer. The dynamic application module 34 performs a HTTP redirect to the universal session manager 32 to determine if the customer is logged in. If the customer is logged in, the universal session manager 32 performs a redirect back to the dynamic application module 34 with a parameter appended to the URL identifying the customer. If the customer is not logged in, the redirect back to the application module includes no customer identification parameter. If the customer is an existing customer that has logged into the system, then in step 350 the dynamic application module 34 interacts with the e-profile database 36 to retrieve stored information regarding the customer. The customer identification parameter received from the universal session manager 32 is provided to the e-profile database 36 and stored data regarding the customer is returned to the dynamic application module 34. The dynamic application module 34 inserts this information into the appropriate objects in the application page at step 375. For example, the customer name is pre-inserted into a name text field in the application page.

The customer is then provided the application in step 400. If the customer has logged in as an existing customer, then a partially pre-filled application page is provide from step 375. If the customer has not logged in, a blank application form is provided. The

application form may be provided as a direct reaction to the URL received in step 150. The application may alternatively be provided after customer has been provided with additional pages, which may provide addition disclosure or instructions. A Secured Socket Layer (SSL) channel is initiated once the customer selection is received and all data requested by the application is encrypted, preferably using 128 bit encryption.

After the customer completes the application, the customer indicates that the information should be sent to the Internet Bank. At this point the customer input information is verified at step 450 to ensure that is in the proper form and meets certain minimum standards. This verification step may verify that all required information has been provided by the customer. The verification step may also verify that the form of the information provided is correct. The information provided by the customer may be validated by comparison to acceptable field types, maximum length, minimum length, etc. For example, the verification step may ensure that the customer has provided a ZIP code and may also verify that the data input is a valid ZIP code or in the form of a valid ZIP code. If the information input by the customer is not in the proper form a page is displayed requesting that the customer enter valid information. If the information is verified in step 450, then the information is accepted by the dynamic application module.

Upon accepting the application information from the customer, the dynamic application module causes the information to be formatted and sent to the decision module 40, as shown in step 600. The decision module 40 returns an application locator key to the dynamic application module upon receiving and saving the application information. After the customer has indicated that the input information is to be sent to the Internet Bank, the

customer may be provided in step 550 with additional disclosure regarding the products and services selected. The system may provide other messages or advertisements at this time. The dynamic application module 34 also logs information regarding the application process. This information may includes data such as the time the application was provided to the customer, the time the completed application was received, if the completed application was received, and other information regarding the application process. This information is sent to the application processing database in step 650.

The dynamic application module 34 requests the results of the application processing from the decision module with the application locator key as shown in step 700. These results are provided to the customer promptly in an appropriate form by the dynamic application module 34. As this process is entirely automated, the results can be provided in approximately one minute of submitting the application data. The results cover all of the products the customer may desire. If the customer application for any product or service is approved, the dynamic application module requests further identifying information. Upon receiving the further information the dynamic application module 34 provides the customer with a link to an enrollment module. If not approved the customer may be provided with information regarding further review of the application and future contact by the bank.

Other embodiments, uses and advantages of the present invention will be apparent to those skilled in the art from consideration of the specification and practice of the invention disclosed herein. The specification and examples should be considered exemplary only. The intended scope of the invention is only limited by the claims appended hereto.